

feelings of uncertainty. In this specific context, the model proposed by Hibbing et al. may be true: Ideological beliefs may be related to negative emotions as the source of the need for closure, whereas feelings of uncertainty and ambiguity are related to ideological beliefs. However, as older adults are mainly motivated to seek closure, they may also search more for positive rather than negative information because being in a positive mood allows them to successfully achieve closure (Kossowska et al. 2012). Thus, although the need for closure (and ideological beliefs) may be related to negative emotions, positive emotional states allow older adults to achieve closure and reduce uncertainty.

To summarize, we suggest the necessity for a deeper integration of the adult life-span perspective with roots of variations in the political views theoretical model, as the current version of Hibbing et al.'s model presented in the target article is inconsistent with the existing data on emotion regulation (i.e., deemphasizing orientation to negative stimuli) and increase of conservatism over the span of adulthood.

ACKNOWLEDGMENTS

The preparation of this paper was supported by the Mistrz Programme (Grzegorz Sedek, Foundation for Polish Science) and by a grant from the National Science Center DEC 2011/02/A/HS6/00155.

Confounding valence and arousal: What really underlies political orientation?

doi:10.1017/S0140525X13002744

Shona M. Tritt,^a Michael Inzlicht,^a and Jordan B. Peterson^b

^aUniversity of Toronto Scarborough, Department of Psychology, Toronto, Ontario M1C 1A4, Canada; ^bDepartment of Psychology, University of Toronto, Toronto, Ontario M5S 3G3, Canada.

shona.tritt@utoronto.ca www.shonatrutt.com

michael.inzlicht@utoronto.ca www.michaelinzlicht.com

peterson@psych.utoronto.ca <http://jordanbpeterson.com/>

Abstract: The negative valence model of political orientation proposed by Hibbing et al. is comprehensive and thought-provoking. We agree that there is compelling research linking threat to conservative political beliefs. However, we propose that further research is needed before it can be concluded that negative valence, rather than arousal more generally, underlies the psychological motivations to endorse conservative political belief.

Hibbing et al. present persuasive research linking threat sensitivity to conservative political beliefs. Yet further study into the possible confound between negative valence and arousal is needed before it can be affirmed that negative valence, rather than arousal more generally, underlies the psychological motivations to endorse conservative political belief.

Arousal and valence have often been confounded. For decades, psychologists have assumed that humans have a negativity bias, responding more intensely to negative than to positive and/or neutral information (e.g., Baumeister et al. 2001; Cacioppo et al. 1999; Öhman 1992; Smith et al. 2003). However, some of the support for such a bias may have come from the use of positive stimuli that are low in arousal (e.g., scenes of leisure activities) instead of stimuli that are high in arousal (e.g., erotica). Indeed, recent psychophysiological studies that have used positive and negative stimuli with the same mean arousal ratings, have found equally enhanced attention to positive as well as negative compared to neutral images (e.g., see Weinberg & Hajcak 2010).

Political psychology research may have similarly confounded valence and arousal, leading to the false conclusion that negative valence per se is associated with conservative political beliefs. The confounded nature of arousal and valence is reflected in

Hibbing et al.'s interpretation of experimental, psychophysiological, neurobiological, and personality research.

For example, Hibbing et al. cited experimental studies that supported the idea that threat leads to conservative shifts in political beliefs. However, most of the studies referenced neglected to assess the impact of non-negative forms of arousal. Could positively-arousing stimuli lead to similar conservative shifts? It is premature to conclude that negative valence causes conservative shifts when the impact of positively valenced arousing stimuli has not been assessed. Hibbing et al. reviewed only one experimental study that included positively valenced stimuli, happy faces (Lodge & Taber, 2013). Yet because happy faces have elsewhere been found to be less motivationally salient/arousing than unhappy/angry faces (e.g., Hansen & Hansen 1988), it remains unclear whether valence or arousal underlie such findings.

Citing the relevant psychophysiological research, Hibbing et al. similarly concluded that conservatives preferentially process negative information, even though the studies they considered did not include an arousing, non-negatively valenced condition. Instead, researchers either assessed how individuals process negative compared to neutral information (Dodd et al. 2012; Fodor et al. 2008; Oxley et al. 2008; Smith et al. 2011) or how participants processed highly arousing negative compared to less arousing positively valenced information, thus confounding the effect of arousal and valence (Carraro et al. 2011; Dodd et al. 2012; McLean et al., in press). Dodd et al., for example, used three photographic stimuli of each valence type; positive stimuli included depictions of a happy child, a bowl of fruit, and a cute rabbit, whereas negative stimuli included depictions of a spider walking across a man's face, an open wound infested with maggots, and a violent altercation between a man and a group of people. Without the engagement of equally arousing positive and negative stimuli, findings in these studies remain questionable.

Hibbing et al. also cited studies that documented enhanced volume and activity of the amygdala among conservatives as support for their greater sensitivity to threat and uncertainty (Kanai et al. 2011; Schreiber et al. 2013). Yet, recent evidence suggests that the amygdala is implicated in detecting a broad range of motivationally relevant stimuli, including positive rewards (Cunningham 2012; Murray 2007). Thus, enhanced amygdala activity/volume may reflect heightened motivational arousal, in general, rather than specific sensitivity to threat and uncertainty.

Additionally, if political conservatism is fundamentally associated with sensitivity to negative valence specifically, then it should be at least somewhat positively correlated with neuroticism, a personality trait that clearly subsumes fear, anxiety, and aversion to uncertainty (e.g., Hirsh & Inzlicht 2008). Neuroticism, however, has not been linked in any consistent manner to political belief (e.g., Hirsh et al. 2010).

In fact, the personality research cited by Hibbing et al., which indicates that conservatism is linked with intolerance of uncertainty, may arguably be interpreted to indicate intolerance of arousal rather than threat. Uncertainty or novelty is not always experienced as aversive, and is just as likely to activate the dopaminergic exploratory systems as the threat/anxiety system (Gray 1982). Moreover, uncertainty or novelty can intensify the impact of positive as well as negative emotional events (see Bar-Anan et al. 2009).

Not only is it conceivable that the effects of arousal and valence have been confounded in past studies but there are compelling reasons independent of these studies to believe that conservatism is motivated by arousal rather than by valence. Lines of research have recently indicated a link between conservative political belief and positive emotional states such as happiness (e.g., Taylor et al. 2006). Moreover, although a negative valence model would suggest that conservative political parties are most likely to be voted into power during times of instability, recession and threat, historically, this has not always been the case. Extreme right-wing political parties such as Denmark's Folk party and

Norway's Progress Party, for example, rose to power during the boom years of the mid-2000s, when unemployment hovered around only 5% in both countries. A review of studies examining economic influences on voting behavior provides similar evidence: Societies become more conservative in times of economic boom, rather than recession (Monroe 1979). In addition, premarital and unconventional sex, sexually explicit literature and representation, and recreational drug use, although typically decried by conservatives (Dombink 2006), are not obviously fear-inducing but rather appear to be more accurately construed as arousing. Finally, we have recently demonstrated that positive, like negative mood induction, can lead to conservative shifts in belief preference (Tritt et al. 2013).

In short, it is reasonable to conclude that arousal, regardless of valence, may underlie conservative shifts in political beliefs, and to posit that conservatives are more sensitive to arousing stimuli than to threat, per se. At the very least, further research is needed to distinguish the effects of arousal and valence before it can be definitively concluded that differences in negativity bias underlie variations in political ideology.

Facial expression judgments support a socio-relational model, rather than a negativity bias model of political psychology

doi:10.1017/S0140525X13002756

Jacob M. Vigil and Chance Strenth

Department of Psychology, University of New Mexico, Albuquerque, NM 87131-1161.

vigilj@unm.edu

http://www.unm.edu/~psych/faculty/sm_vigil.html

cstrenth@unm.edu

Abstract: Self-reported opinions and judgments may be more rooted in expressive biases than in cognitive processing biases, and ultimately operate within a broader behavioral style for advertising the capacity—versus the trustworthiness—dimension of human reciprocity potential. Our analyses of facial expression judgments of likely voters are consistent with this thesis, and directly contradict one major prediction from the authors' "negativity-bias" model.

Hibbing et al. describe a conventional interpretation of political psychology that rests on the assumption that people who advocate different political ideals possess relatively distinct, and somewhat hard-wired or trait-like, "organizational" (i.e., cognitive) tendencies. More nuanced models of political ideology suggest instead that self-reported political opinions and judgments reflect facultative and stylistic (i.e., expressive) biases in how people advertise their "reciprocity potential," or perceived value to other people, via basic social-signaling patterns (Vigil 2009). In this commentary we describe an alternative model to Hibbing et al.'s "negativity bias" model, and conduct a study to directly measure the predictive validity of the two competing models using a facial discrimination paradigm.

Our socio-relational perspective of political ideologies subsumes the following five premises: (1) social signaling (communicative) systems underlie social cognition; (2) expressive behaviors are composed of *capacity cues* and *trustworthiness cues* (see Vigil [2009] for detailed examples); (3) capacity cues (e.g., expressed confidence) are implicitly functional for attracting novel relationship partners and for maintaining larger social networks, whereas trustworthiness cues (e.g., expressed vulnerability) are better at regulating relationships within more consolidated and intimate social networks; (4) people implicitly advertise capacity cues when they experience social and/or material resource acquisition, and they instead advertise trustworthiness cues when they experience resource losses; and (5) individual and group differences in expressive styles are measurable

through self-reported opinions and judgments about internal (e.g., self-esteem) and external (e.g., societal views) stimuli and/or events.

We previously showed that self-identified Democrats and Republicans report facial judgment biases that can support both the negativity bias and the socio-relational models of political ideology (Vigil 2010). People self-identified as Republicans were more likely to interpret ambiguous facial stimuli as expressing threatening emotions as compared to self-identified Democrats (e.g., anger and fear vs. joy and sadness). However, when participants' facial judgments were coded as either conveying capacity (e.g., dominant) or trustworthiness (e.g., submissive) attributes, we found that Republicans were more likely to report viewing capacity emotions (e.g., anger and joy), whereas Democrats were more likely to report viewing trustworthiness emotions (e.g., fear and sadness). Democrats also reported having smaller peer networks, and experiencing greater emotional distress including higher rates of crying behaviors, emotional pain, and lower life-satisfaction. We interpreted the findings as evidence that people who experience conditional hardships have adopted an expressive style that is characterized by demonstrations of vulnerabilities (e.g., low mood), as well as demonstrations of altruism (e.g., liberal platform ideals) for regulating smaller, more intimate social networks. The converse interpretation is that experiential prosperities motivate the expression of empowerment demonstrations (e.g., high confidence, conservative platform ideals) that operate to regulate larger peer networks. Thus, both models had components that appeared to be supported by our previous data.

Here we conduct a follow-up study using a more standardized facial stimuli-set to examine if self-identified liberals and conservatives show facial expression judgment biases that are more in line with either a negativity-bias model or with a socio-relational model. Eight hundred and sixty seven people from a college and community sample completed a survey designed to measure individual differences in "political attitudes" in the immediate months preceding and following the 2012 U.S., presidential election (mean age=25 yr, 39% males). Using a 1–5 scale for current voting decisions, 54% of participants described themselves as more likely to vote or having voted for the Democrat presidential candidate, 25% as more likely to vote or having voted for the Republican candidate, and 21% as completely undecided. Facial stimuli were created using FaceGen software (Modeler 2.0, Singular Inversion Inc.), which creates 3D faces programmed to display several basic facial expressions of emotion. Six ambiguous facial stimuli were created by simultaneously setting the facial expression parameters to the maximum levels for two discrete emotions, for every combination of emotions, from a total of four distinct emotions: sadness, joy, fear, and anger. Under each sketch, participants were instructed to identify the facial expression as displaying either: *anger* (A), *joy* (J), *fear* (F), or *sadness* (S). To test the negativity bias model, participants' responses were coded according to whether the reported emotion facilitates affiliation (joy or sadness coded 0) or avoidance/negativity/aversion (anger or fear coded 1). To test the socio-relational model, the responses were coded according to whether the reported emotion displays capacity (anger or joy coded 0) or trustworthiness (fear or sadness coded 1). For each set of contrasts, the facial judgment scores were summed across all six facial stimuli.

The stimuli and the results of the independent-samples *t*-tests examining the predictive validity of the two models among participants who indicated a voting preference (*somewhat* or *very likely* to vote either Democrat or Republican) are shown in Figure 1. No group differences in facial judgment biases were detected when the stimuli were coded as either conveying affiliative or negative/aversive emotions, $t(541) = 1.09, p = .38$ (Fig. 1a). In contrast, a significant group difference in facial judgments emerged when the responses were coded as either conveying capacity or trustworthiness emotions, $t(541) = 2.48, p = .01$ (Fig. 1b). The findings showed that conservatives were more likely to report viewing